

WHAT IS CLAIMED IS:

1. A ligating apparatus comprising:

an introducing tube which can be inserted in a living body cavity; a manipulating wire inserted in the introducing tube in such a manner that the manipulating wire can freely advance or retreat; a clip having a base end to which a tip end of said manipulating wire is directly joined without using an engaging means; and engaging means disposed in at least one of the base end 5 of said clip and the tip end of said manipulating wire, wherein at least one of the engaging means is deformed and releases engaging of said clip and said manipulating wire, when a force for detaching the base end of said clip from the tip end of the manipulating wire 10 is applied.

2. A mechanism according to claim 1 wherein a deformable hook projected in a direction opposite to a direction of an arm portion is disposed in the base end of said clip.

20 3. A mechanism according to claim 1 wherein a closed loop portion is disposed in the tip end of said manipulating wire.

4. A mechanism according to claim 3 wherein the loop portion is ruptured and the engaging of the clip 25 and the manipulating wire is released, when the force for detaching said clip base end from the tip end of the manipulating wire is applied.

5. A mechanism according to claim 1 wherein a  
hole through which the tip end of said manipulating  
wire can be inserted is formed in the base end of the  
clip, and a bulged portion larger than the hole is  
disposed in the tip end of the manipulating wire.

10 6. A mechanism according to claim 1 wherein a  
clip tightening ring is attached to an arm portion of  
said clip to close a holding portion of the clip, and  
the engaging means is disposed in at least one of the  
introducing tube and the clip tightening ring to  
prohibit the clip tightening ring from being contained  
again in the introducing tube, when the clip and the  
clip tightening ring project forwards from the  
introducing tube.

15 7. A mechanism according to claim 6 wherein a  
deformable hook projected in a direction opposite to a  
direction of said arm portion is disposed in the base  
end of said clip.

20 8. A mechanism according to claim 6 wherein a  
closed loop portion is disposed in the tip end of said  
manipulating wire.

25 9. A mechanism according to claim 8 wherein the  
loop portion is ruptured and the engaging of the clip  
and the manipulating wire is released, when the force  
for detaching said clip base end from the tip end of  
the manipulating wire is applied.

10. A mechanism according to claim 6 wherein

a hole through which the tip end of said manipulating wire can be inserted is formed in the base end of the clip, and a bulged portion larger than the hole is formed in the tip end of the manipulating wire.

5        11. A mechanism according to claim 1 wherein  
a manipulating member is inserted through said  
introducing tube in such a manner that the manipulating  
member can freely advance and retreat, the manipulating  
wire is inserted through the manipulating member in  
10      such a manner that the manipulating wire can freely  
advance and retreat, and a clip tightening ring is  
attached to an arm portion of said clip to close a  
holding portion of said clip.

15      12. A mechanism according to claim 11 wherein  
a deformable hook projected in a direction opposite to  
a direction of said arm portion is disposed in the base  
end of said clip.

20      13. A mechanism according to claim 11 wherein a  
closed loop portion is disposed in the tip end of said  
manipulating wire.

25      14. A mechanism according to claim 11 wherein the  
loop portion is ruptured and the engaging of the clip  
and the manipulating wire is released, when the force  
for detaching the base end of said clip from the tip  
end of the manipulating wire is applied.

15      15. A mechanism according to claim 11 wherein  
a hole through which the tip end of said manipulating

wire can be inserted is formed in the base end of the clip, and a flat bulged portion larger than the hole is formed in the tip end of the manipulating wire.

16. A ligating apparatus comprising:

5       an introducing tube which can be inserted in  
a living body cavity; a manipulating wire inserted  
through the introducing tube in such a manner that the  
manipulating wire can freely advance or retreat; a clip  
having a base end and a holding portion formed in an  
10      arm portion extending from the base end; a hole which  
is formed in the base end of said clip and through  
which said manipulating wire can be inserted; and  
a bulged portion which is disposed in a tip end of the  
manipulating wire inserted through said hole and which  
15      has a diameter larger than a diameter of said hole.

17. A mechanism according to claim 16 wherein a  
clip tightening ring attached to the arm portion of  
said clip to close the holding portion of the clip; and  
a manipulating member inserted through the introducing  
20      tube disposed behind the clip tightening ring in such a  
manner that the manipulating member can freely advance  
or retreat.

18. A mechanism according to claim 16 wherein  
a clip tightening ring attached to the arm portion of  
25      said clip to close the holding portion of the clip;  
engaging means, disposed in at least one of the  
introducing tube and the clip tightening ring, for

prohibiting the clip tightening ring from being contained again in the introducing tube, when the clip and the clip tightening ring project forwards from the introducing tube; and a manipulating member inserted through the introducing tube disposed behind the clip tightening ring in such a manner that the manipulating member can freely advance or retreat.

19. A mechanism according to claim 16 wherein the tip end of said manipulating wire is crushed in a flat shape, and a bulged portion is formed.

20. A mechanism according to claim 16 wherein a pipe-shaped member is attached to the tip end of said manipulating wire, and a bulged portion is formed.

21. A ligating apparatus comprising:

an introducing tube which can be inserted in a living body cavity; a manipulating wire inserted through the introducing tube in such a manner that the manipulating wire can freely advance or retreat; and at least two clips each of which has a base end and a holding portion formed in an arm portion extending from the base end, wherein two or more clips are arranged in series, a hole through which said manipulating wire can be inserted is formed in the base end of each clip, and a bulged portion larger than the hole is disposed in the tip end of the manipulating wire inserted through the hole in the base end of the clip.

22. A mechanism according to claim 21 wherein

a clip tightening ring attached to the arm portion of  
said clip to close the holding portion of the clip; and  
a manipulating member inserted through the introducing  
tube disposed behind the clip tightening ring disposed  
5 in a closest position in such a manner that the  
manipulating member can freely advance or retreat.

23. A mechanism according to claim 21 wherein  
a clip tightening ring attached to the arm portion of  
said clip to close the holding portion of the clip;  
10 engaging means, disposed in at least one of the  
introducing tube and the clip tightening ring, for  
prohibiting the clip tightening ring from being  
contained again in the introducing tube, when the clip  
and the clip tightening ring project forwards from the  
15 introducing tube; and a manipulating member inserted  
through the introducing tube disposed behind the clip  
tightening ring disposed in the closest position in  
such a manner that the manipulating member can freely  
advance or retreat.

20 24. A mechanism according to claim 21 wherein the  
tip end of said manipulating wire is crushed in a flat  
shape, and a bulged portion is formed.

25 25. A mechanism according to claim 21 wherein a  
pipe-shaped member is attached to the tip end of said  
manipulating wire, and a bulged portion is formed.

26. A ligating apparatus comprising:  
two or more clips which can be fastened in

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5 a living tissue; an introducing tube which can guide  
said clip into a living body cavity and which has  
flexibility; and a manipulating mechanism which can  
successively fasten the two or more clips in the living  
body cavity, wherein said introducing tube including at  
least said clips is packaged in a curved state having a  
radius of 15 mm or more or a straightened state, when  
said ligating apparatus is packaged.

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10 27. A ligating apparatus comprising:  
11 two or more clips which can be fastened in a  
12 living tissue; an introducing tube which can guide said  
13 clip into a living body cavity and which has  
14 flexibility; and a manipulating mechanism which can  
15 successively fasten the two or more clips in the living  
body cavity, wherein said introducing tube including  
said clips is positioned before a curved portion of  
an endoscope.

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20 28. A mechanism according to claim 27 wherein all  
the clips are disposed in a position of 125 mm or less  
from the tip end of said introducing tube.

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25 29. A ligating apparatus comprising:  
a clip which can be fastened in a living tissue;  
an introducing tube which can guide said clip into a  
living body cavity and which has flexibility; a  
manipulating mechanism which can fasten said clip in  
the living body cavity; and a mechanism which can  
extend/open the once closed clip again and can close

the clip again.

30. A twined wire comprising:

at least two twined material wires; and a loop formed in a tip end of the twined wire using at least one of said material wires, wherein the material wire with the loop formed therein is twined back again on a base end of the twined wire.

5 31. A mechanism according to claim 30 wherein said material wire is constituted of a twined material wire.

10 32. A mechanism according to claim 30 wherein three or more material wires are intertwined to form the twined wire.

15 33. A mechanism according to claim 1 wherein at least one of two or more material wires intertwined to form a twined wire is used to form a loop in a tip end of the twined wire, and the material wire with the loop formed therein is twined back again with the twined wire to constitute a manipulating wire.

20 34. A mechanism according to claim 1 wherein at least one of two or more material wires intertwined to form a twined wire is used to form a loop in a tip end of the twined wire, and the material wire with the loop formed therein is twined back again with the twined wire to constitute joint means.